

Amendment to the Specification

Please replace paragraph [0004] of the originally filed specification with the re-written paragraph provided below showing mark-ups.

-- [0004] The performance characteristics of most cellulose fiber reinforced building materials are highly dependent on the quality and characteristic of the cellulose fibers used. In particular, the species and grade of cellulose fibers can have a significant impact on the flexibility and strength of the building material. For example, unbleached, premium grade cellulose fibers derived from *Pinus* ~~_____~~ *. Radiata Pinus Radiata* are known to provide the resulting product with higher strength because these fibers typically have longer length and favorable strength-related properties. Conversely, unbleached, standard grade cellulose fibers derived from a variety of other commonly available wood species such as Douglas fir, hemlock, spruce, white fir, southern pine, and redwood are generally shorter and/or weaker, imparting lower strength and flexibility to the product. --

Please replace paragraph [0009] of the originally filed specification with the re-written paragraph provided below showing mark-ups.

-- [0009] The terms "bleached cellulose fibers. ~~fibers~~," "bleached fibers" and "bleached cellulose pulp" used herein refer to cellulose fibers that have been treated with a bleaching agent such as hydrogen peroxide, sodium hypochlorite, chlorine, and/or chlorine dioxide. The bleached cellulose fibers may encompass pulp derived from a variety of species of wood including but not limited to Douglas fir, hemlock, *P. Radiata* ~~P. Radiata~~ pine, white fir, spruce, southern yellow pine, kenaf, and redwood. The bleached cellulose fibers can be prepared by Kraft, Sulfite, or other pulping methods. --

Please replace paragraph [0010] of the originally filed specification with the re-written paragraph provided below showing mark-ups.

-- [0010] The terms "premium grade cellulose fibers," ~~fibers~~; "premium grade fibers" and "premium grade cellulose pulp" used herein refer to cellulose fibers derived from P. Radiata ~~P. Radiata~~ pines having an average fiber length of more than about 1.5 mm and an average tensile strength of more than about 12.5 km by TAPPI method T231. The terms "standard grade cellulose fibers," ~~fibers~~; "standard grade fibers" and "standard grade cellulose pulp" used herein refer to cellulose fibers derived from .a variety of commonly available wood species such as Douglas fir, hemlock, spruce, white fir, southern pine, kenaf, and redwood, excluding P. Radiata ~~P. Radiata~~ pines. The term "standard grade cellulose fibers" can also be used to refer to "fiber cement grade cellulose fibers" known in the art. --

Please replace paragraph [0012] of the originally filed specification with the re-written paragraph provided below showing mark-ups.

-- [0012] The bleached cellulose fibers are preferably standard grade fibers derived from species selected from the group consisting of Douglas fir, hemlock, spruce, southern pines, and redwood. In certain embodiments, the bleached cellulose fibers can also be premium grade fibers derived from ~~R. Radiata~~ P. Radiata pine. The unbleached cellulose fibers are preferably standard grade fibers comprising species selected from the group consisting of Douglas fir, hemlock, white fir, spruce, southern pine and redwood. In one embodiment, the bleached and unbleached cellulose fibers combined comprise about 0.5%-20% by weight of the composite material. In another embodiment, the bleached and unbleached cellulose fibers comprise standard grade cellulose fibers having an average fiber length of between about 1 mm to 3.5 mm. Preferably, the modulus of rupture (MOR) and toughness energy of the composite material reinforced with the blend of bleached and unbleached fibers are substantially equal to or greater than that of an equivalent material reinforced with unbleached, premium grade cellulose fibers. --

Please replace paragraph [0027] of the originally filed specification with the re-written paragraph provided below showing mark-ups.

-- [0027] Table 1 compares the mechanical properties of the fiber-reinforced cement composite materials made with equivalent formulations in which Formulation A incorporates bleached cellulose fibers and Formulation B incorporates premium cellulose fibers. The materials were produced using a Hatschek machine and the results are based on many samples collected over 1 week of production. It can be seen that formulations containing about 13% bleached pulp resulted in products with similar mechanical properties as ~~when~~ compared with products based on an equivalent formulation containing about 13% premium fiber of ~~R. Radiata~~ P. Radiata pine. --

Please replace Table 1 of the originally filed specification with the re-written Table 1 provided below showing mark-ups.

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Table 1: Property Comparisons <u>Comparison of Fiber</u>		
	Formulations	
	€ <u>A</u> 13% bleached pulp	Ð <u>B</u> 13% premium <i>Radiata</i> pine
Average Physical Properties		
MOR (MPa)	10.39	10.29
Dry Density (Kg/m ³)	1.25	1.25
Strain (µm/m)	12444	11961
Toughness (KJ/m ³)	10.39	10.99

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